



The PREVIEW global risk data platform: A geoportal to serve and share global data on risk to natural hazards

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Abstract:

With growing world population and concentration in urban and coastal areas, the exposure to natural hazards is increasing and results in higher risk of human and economic losses. Improving the identification of areas, population and assets potentially exposed to natural hazards is essential to reduce the consequences of such events. Disaster risk is a function of hazard, exposure and vulnerability. Modelling risk at the global level requires accessing and processing a large number of data, from numerous collaborating centres. These data need to be easily updated, and there is a need for centralizing access to this information as well as simplifying its use for non GIS specialists. The Hyogo Framework for Action provides the mandate for data sharing, so that governments and international development agencies can take appropriate decision for disaster risk reduction. Timely access and easy integration of geospatial data are essential to support efforts in Disaster Risk Reduction. However various issues in data availability, accessibility and integration limit the use of such data. In consequence, a framework that facilitate sharing and exchange of geospatial data on natural hazards should improve decision-making process. The PREVIEW Global Risk Data Platform is a highly interactive web-based GIS portal supported by a Spatial Data Infrastructure that offers free and interoperable access to more than 60 global data sets on nine types of natural hazards (tropical cyclones and related storm surges, drought, earthquakes, biomass fires, floods, landslides, tsunamis and volcanic eruptions) and related exposure and risk. This application portrays an easy-to-use online interactive mapping interface so that users can easily work with it and seamlessly integrate data in their own data flow using fully compliant OGC Web Services (OWS). © 2011 Author(s).

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Resource Description

Communication:

resource focus on research or methods on how to communicate or frame issues on climate change;
 surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience:

audience to whom the resource is directed

Policymaker

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Early Warning System:

resource focus on systems used to warn populations of high temperatures, extreme weather, or other elements of climate change to prevent harm to health

A focus of content

Exposure :

weather or climate related pathway by which climate change affects health

Extreme Weather Event

Extreme Weather Event: Drought, Flooding, Hurricanes/Cyclones, Landslides, Wildfires

Geographic Feature:

resource focuses on specific type of geography

Ocean/Coastal, Urban

Geographic Location:

resource focuses on specific location

Global or Unspecified

Health Impact:

specification of health effect or disease related to climate change exposure

General Health Impact, Injury

Intervention:

strategy to prepare for or reduce the impact of climate change on health

A focus of content

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Model/Methodology:

type of model used or methodology development is a focus of resource

Outcome Change Prediction

Resource Type:

format or standard characteristic of resource

Research Article

Resilience:

capacity of an individual, community, or institution to dynamically and effectively respond or adapt to shifting climate impact circumstances while continuing to function

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A focus of content

Timescale:

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment:

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content